REMARKS/ARGUMENTS

Claims 1-9 and 17-28 are pending in the Application. Claims 10-16 have been withdrawn. All of the pending claims have been rejected. No claim amendments have been made in this Response.

1. Claim Rejections – 35 U.S.C. § 112

Claims 1-9 and 17-28 were rejected under 35 USC § 112 as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Underlying this rejection is the assertion that the term "molecules having multivalent metal cations associated therewith", which appears in independent claims 1 and 17, represents an overly broad genus. The claims dependent from claims 1 and 17 were rejected because those claims inherently contain the limitations of the independent claims from which they depend.

Applicants must continue to disagree with the assertion that the use term "molecules having multivalent metal cations associated therewith" makes the pending claims indefinite. Indeed, Applicant believes that the Examiner has failed to meet the initial burden set forth in § 2164.04 of the M.P.E.P. for establishing that there is a reasonable basis for questioning the enablement provided for the claimed invention. Applicants believe that the disputed term is comparable, if not narrower, than terms used in issued patents (e.g. "polyionic component" in claim 1 of US Patent No. 6,472,141), that have withstood litigation. As stated in the response to the previous Office Action, the broadest class of compounds described in the specification is "polyions". Application pg. 12 lines 17-29 (paragraph [0055]). Within the genus of "polyions", there is the species of "polycations". See, e.g., pg. 17 lines 30. Also within the genus of "polyions", is the species of molecules having multivalent metal cations associated therewith. Application pg. 20 lines 12-20. The specification states "Examples of such molecules include metal chelating proteins that chelate these ions, or the like." *Id.* Arguably, molecules having multivalent metal cations associated therewith are a subspecies of "polycations". See US Patent No. 6,472,141 claims 10. Indeed, pending claims 1 and 17 are almost certainly narrower than US Patent No. 6,472,141, claim 1.

Although there may be some disagreement as to whether "molecules having multivalent metal cations associated therewith" are a "genus" in the technical sense, Applicants assert that one skilled in the art would understand the meaning of that term through the disclosure of the "identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics." M.P.E.P. § 2163. Accordingly, the disclosure of a representative number of species is irrelevant. The identifying characteristics set forth in the specification are the presence of the "multivalent metal ion" as a means of providing a "non-specific charge dependent" interaction with the either the substrate or product. See paragraph [0056] starting on pg. 12 of the Application. The chemistry of fluorescent dyes, including concepts such as fluorescence polarization and quenching, was well understood by those skilled in the art at the time the invention was made. Accordingly, the Application suggests that well-known, commercially available fluorescent dyes be used in the invention. See Application paragraph [0052], which starts on pg. 11. What was not understood was how to attach a component (such as the polyion in this Application) preferentially to either the substrate or product of an enzymatic reaction in a way that did not require a specific recognition site on the product. Applicants respectfully assert that the properties of components required to modify the fluorescent polarization or intensity of commercially available fluorescent dyes were known by those skilled in the art at the time of the invention. What was not known was how to attach those components in the "non-specific charge dependent" manner described in the invention. As described in previously cited portions of the Application, a "molecules having multivalent metal cations associated therewith" can provide the desired type of attachment.

Applicants also ask the Examiner to reconsider the claim construction order submitted with Applicant's previous Office Action response. The case the Examiner cited for the proposition that the USPTO uses a different standard of claim interpretation related to the interpretation of the scope of claims for determining the relevance of prior art, not interpretation of claims for the purpose of determining the adequacy of written description. Although Applicant does not dispute that the Examiner is not legally bound by the Claim Construction, Applicant asserts that the Claim Construction should be considered as evidence that the pending claims are adequately supported by the specification, coupled with the degree of skill possessed by those in the relevant art.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned attorney.

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Signed: